

C. Remarks

The claims are 1, 4-12 and 15-20, with claims 1, 10 and 11 being independent. Claims 2, 3, 13 and 14 have been cancelled. Claims 1 and 10-12 have been amended to better define the present invention. Support for this amendment may be found, inter alia, in the specification at page 7, line 2, in Example 2 and/or in cancelled claims 2 and 13. No new matter has been added. Reconsideration of the present claims is expressly requested.

Claims 1-4, 6-8, 10-15 and 17-19 stand rejected under 35 U.S.C. § 102(a) as being allegedly anticipated by U.S. Patent No. 6,037,255 (Hussein). Claims 9 and 20 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hussein. Claims 5 and 16 have been rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hussein in view of EP 0 880 164 (Suzuki). These rejections are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly review some the key features and advantages of the presently claimed invention. The present invention is directed to a method for etching an organic film using a hard mask (intermediate) layer, which includes a layer comprising aluminum or copper. The presence of these metals in the hard mask layer allows a high selectivity, high precision etching of an organic film to be performed.

Hussein is directed to an IC production method in which a photoresist is removed simultaneously when etching a dielectric film and an IC production method through a damascene process using an organic film. Hussein teaches, for example, an insulating film such as SiO₂, SiN or SiOF as a hard mask for etching an organic film.

The Examiner has alleged that since Hussein states that “[t]he same material used to make the barrier layer 102 . . . may be used to make the hard masking layer 104” (col. 3, lines 37-38) and since Hussein teaches that the barrier layer 102 can be made from,

for example, TiN (col. 2, line 49), the hard masking layer 104 can be made from the same TiN material. However, even if assumed, arguendo, that Hussein does contain such a teaching, this reference still fails to disclose or suggest a hard masking layer comprising either aluminum or copper, as presently claimed. Hussein teaches using copper only in a conductive layer 101 (col. 2, lines 38-40). Therefore, clearly, Hussein cannot affect the patentability of the presently claimed invention.

Suzuki is directed to a plasma processing apparatus. This reference was cited for a teaching of a surface-wave interfered plasma. Even if assumed, arguendo, that Suzuki contains the alleged teaching, this reference, like Hussein, does not disclose or suggest an intermediate layer comprising aluminum or copper. Therefore, Suzuki, alone or in combination with Hussein, cannot affect the patentability of the presently claimed invention.

Wherefore, Applicants respectfully request that the outstanding rejections be withdrawn and the subject application be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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